Gross Domestic Expenditure on R&D indicators and Scientific Ranking: Do Countries that Better Spend on Research and Development Have Better Scientific Rankings?

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Abstract

Purpose: This research aims to analyze the relationships between budgets allocated to research and development by countries and scientific ranks of them.

Methodology: scientometrics approach used for the fulfillment of the research. 37 countries that have more than 100 H-Index in 1996 until 2010 in SciMago, had selected for the study. These countries were studied in 3 difference clusters. The data gathered from WoS, SciMago, UNESCO, OECD and World Bank databases. The research questions had responded through Pierson Correlation Test.

Findings: findings show that there is positive correlation between two batches of Gross domestic expenditure on R&D indicators and Scientific Ranking indicators. Thus, we can expect an increase in the R&D indicators by applying increase in the budgets allocated to R&D.

Originality/Value: Value of this research is about illumination and verification of the effects of gross domestic expenditure on scientific rankings of countries.

Keywords: scientometrics, Gross domestic, R&D Indicators, Scientific Ranking indicators, gradation indicators.